## Dr. Duke's Phytochemical and Ethnobotanical Databases Chemicals found in Alpinia officinarum

| <b>Activities Count</b> | Chemical         | Plant Part | Low PPM  | High PPM | StdDev              | Refernce Citation  |
|-------------------------|------------------|------------|----------|----------|---------------------|--|
| 176                     | QUERCETIN        | Rhizome    |          |          |                     |  |
| 76                      | EUGENOL          | Rhizome    | 90.0     | 400.0    | -0.6979831170877149 |  |
| 75                      | KAEMPFEROL       | Rhizome    |          |          |                     |  |
| 67                      | 1,8-CINEOLE      | Rhizome    |          |          |                     | Chemical Constituents of Oriental Herbs (3 diff. books)  |
| 60                      | LIMONENE         | Rhizome    |          |          |                     | Wealth of India.   |
| 53                      | LINALOOL         | Rhizome    |          |          |                     | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 41                      | CAMPHOR          | Rhizome    |          |          |                     | Wealth of India.   |
| 35                      | TANNIN           | Rhizome    |          |          |                     | List, P.H. and Horhammer, L.,<br>Hager's Handbuch der<br>Pharmazeutischen Praxis,<br>Vols. 2-6, Springer-Verlag,<br>Berlin, 1969-1979.   |
| 23                      | TERPINEN-4-OL    | Rhizome    |          |          |                     | Wealth of India.   |
| 16                      | P-CYMENE         | Rhizome    |          |          |                     | Wealth of India.   |
| 14                      | MANGANESE        | Plant      |          |          |                     |  |
| 13                      | BETA-PINENE      | Rhizome    |          |          |                     | Wealth of India.   |
| 13                      | GALANGIN         | Rhizome    |          | 1000.0   |                     |  |
| 11                      | ISORHAMNETIN     | Rhizome    |          |          |                     | Wealth of India.   |
| 9                       | DELTA-CADINENE   | Rhizome    |          |          |                     | Wealth of India.   |
| 9                       | CAMPHENE         | Rhizome    |          |          |                     | Wealth of India.   |
| 7                       | RHAMNOCITRIN     | Rhizome    |          |          |                     | Wealth of India.   |
| 5                       | BETA-ELEMENE     | Rhizome    |          |          |                     | Wealth of India.   |
| 5                       | KAEMPFERIDE      | Rhizome    | 600.0    | 800.0    |                     |  |
| 5                       | STARCH           | Rhizome    | 200000.0 | 250000.0 | -1.1706719629335678 | List, P.H. and Horhammer, L.,<br>Hager's Handbuch der<br>Pharmazeutischen Praxis,<br>Vols. 2-6, Springer-Verlag,<br>Berlin, 1969-1979.   |
| 5                       | METHYL-CINNAMATE | Plant      |          |          |                     |  |

| Activities Count | Chemical   | Plant Part | Low PPM | High PPM | StdDev | Refernce Citation   |
|------------------|--|------------|---------|----------|--------|---|
| 3                | FLUORIDE   | Rhizome    |         | 5.4      | -1.0   |   |
| 2                | METHYL-ISOVALERATE   | Rhizome    |         |          |        | Wealth of India.  |
| 2                | QUERCETIN-3'-<br>METHYLETHER   | Rhizome    |         |          |        | Wealth of India.  |
| 1                | PHENYL-ALKYL-KETONES   | Rhizome    |         |          |        | Bisset, N.G., ed. 1994.<br>Herbal Drugs and<br>Phytopharmaceuticals. CRC<br>Press. Boca Raton, FL. 566<br>pp. |
| 0                | 7-(4'-HYDROXY-3'-<br>METHOXYPHENYL)-<br>PHENYLHEPT-4-EN-3-ONE              | Rhizome    |         |          |        | Chemical Constituents of<br>Oriental Herbs (3 diff. books)  |
| 0                | 7-(4"-HYDROXY-3'-<br>METHOXY-PHENYL)-<br>PHENYLHEPT-3,5-DIONE              | Rhizome    |         | 1.6      |        |   |
| 0                | 1,7-DIPHENYL-5-HYDROXY-<br>3-HEPTANONE                                     | Rhizome    |         |          |        | Chemical Constituents of Oriental Herbs (3 diff. books)   |
| 0                | GALANGOL   | Rhizome    |         |          |        |   |
| 0                | 1,7-DIPHENYL-5-<br>HYDROXYHEPTAN-3-ONE                                     | Rhizome    |         |          |        |   |
| 0                | 7-(4'-HYDROXY-3'-<br>METHOXYPHENYL)-1-<br>PHENYLHEPT-4-EN-3-ONE            | Rhizome    |         | 48.0     |        |   |
| 0                | 5-METHOXYPHENYL-7-(4"-<br>HYDROXYPHENYL)-<br>HEPTAN-3-ONE                  | Rhizome    |         | 4.0      |        |   |
| 0                | GALANGIN-3-METHYL-<br>ETHER  | Rhizome    |         |          |        |   |
| 0                | 7-(4'-HYDROXY-3'-<br>METHOXYPHENYL)-1-<br>PHENYL-3,5-HEPTADIONE            | Rhizome    |         |          |        | -   |
| 0                | 5-METHOXY-7-(4'-<br>HYDROXY-3"-<br>METHOXYPHENYL)-1-<br>PHENYLHEPTAN-3-ONE | Rhizome    |         | 12.0     |        |   |
| 0                | 7-HYDROXY-3,5-<br>DIMETHOXYFLAVONE   | Rhizome    |         |          |        | Wealth of India.  |
| 0                | 5-<br>EPIHEXAHYDROCURCUMI<br>N   | Rhizome    |         | 5.0      |        |   |
| 0                | 5-METHOXY-7-(4'-<br>HYDROXY-<br>3'METHOXYPHENYL)-1-<br>PHENYL-3-HEPTA      | Plant      |         |          |        |   |
| 0                | 5-METHOXY-1,7-<br>DIPHENYLHEPTAN-3-ONE                                     | Rhizome    |         | 110.0    |        |   |

| Activities Count | Chemical  | Plant Part | Low PPM | High PPM | StdDev              | Refernce Citation   |
|------------------|---|------------|---------|----------|---------------------|---|
| 0                | TRANS-ALPHA-<br>BERGAMOTENE   | Rhizome    |         |          |                     | Wealth of India.  |
| 0                | 5-HYDROXY-7-(4-<br>HYDROXY-3-<br>METHOXYPHENYL)-1-<br>PHENYL-HEPTANONE      | Plant      |         |          |                     |   |
| 0                | 5-HYDROXY-7-(4"-<br>HYDROXYPHENYL)-1-<br>PHENYLHEPTAN-3-ONE                 | Rhizome    |         | 30.0     |                     |   |
| 0                | EO  | Rhizome    | 3000.0  | 10000.0  | -0.5317116167359565 |   |
| 0                | GINGEROLS   | Rhizome    |         |          |                     | Bisset, N.G., ed. 1994.<br>Herbal Drugs and<br>Phytopharmaceuticals. CRC<br>Press. Boca Raton, FL. 566<br>pp.   |
| 0                | 5-HYDROXY-7-(4'-<br>HYDROXYPHENYL)1-<br>PHENYL-3-HEPTANONE                  | Rhizome    |         |          |                     | Kameoka, H. and Nakai, K.<br>1987. Components of<br>essential oil from the root of<br>Glycyrrhiza-glabra. Nippon<br>Gogeikagaku Kaishi 61(9):<br>1119-1122. |
| 0                | 5-HYDROXY-7-(4"-<br>HYDROXY-3"-<br>METHOXYPHENYL)-1-<br>PHENYLHEPTAN-3-ONE  | Rhizome    |         | 367.0    |                     |   |
| 0                | STEROLS   | Rhizome    |         |          |                     | Bisset, N.G., ed. 1994.<br>Herbal Drugs and<br>Phytopharmaceuticals. CRC<br>Press. Boca Raton, FL. 566<br>pp.   |
| 0                | DIOXYFLAVONAL   | Plant      |         |          |                     |   |
| 0                | GAMMA-CADINENE  | Rhizome    |         |          |                     | Wealth of India.  |
| 0                | 5-HYDROXY-7-(4'-<br>HYDROXY-3'-<br>METHOXYPHENYL)-<br>PHENYL-3-HEPTANONE    | Plant      |         |          |                     |   |
| 0                | 5-HYDROXY-1-PHENYL-7-<br>(4"-HYDROXY-3"-<br>METHOXYPHENYL)-<br>HEPTAN-3-ONE | Rhizome    |         | 330.0    |                     |   |
| 0                | DIHYDROYASHABUSHIKET<br>OL  | Rhizome    |         |          |                     | Chemical Constituents of Oriental Herbs (3 diff. books)   |
| 0                | DIARYLHEPTANOIDS  | Rhizome    |         |          |                     |   |
| 0                | 5-HYDROXY-7-(4'-<br>HYDROXY-3'-<br>METHOXYPHENYL)-1-<br>PHENYL-3-HEPT       | Plant      |         |          |                     |   |

| Activities Count | Chemical  | Plant Part | Low PPM | High PPM | StdDev | Refernce Citation  |
|------------------|---|------------|---------|----------|--------|--|
| 0                | 5-HYDROXY-1,7-<br>DIPHENYLHEPTAN-3-ONE                        | Rhizome    |         | 137.0    |        |  |
| 0                | D-ALPHA-PINENE  | Rhizome    |         |          |        | List, P.H. and Horhammer, L.,<br>Hager's Handbuch der<br>Pharmazeutischen Praxis,<br>Vols. 2-6, Springer-Verlag,<br>Berlin, 1969-1979. |
| 0                | 5-<br>EPIDIHYDROYASHABUSHI<br>KETOL                           | Rhizome    |         | 65.0     |        |  |
| 0                | 3,5,7-<br>TRIHYDROXYFLAVONE                                   | Plant      |         |          |        | J.S. Glasby Dict.Pls<br>Containing 2ndary<br>Metabolite. 1991.   |
| 0                | 1-PHENYL-7-(4"-<br>HYDROXYPHENYL)-HEPT-<br>4-EN-3-ONE         | Rhizome    |         | 8.0      |        |  |
| 0                | ALPINOL   | Rhizome    |         |          |        |  |
| 0                | YAKUCHINONE   | Rhizome    |         |          |        |  |
| 0                | LINALOL   | Rhizome    |         |          |        |  |
| 0                | 1-PHENYL-7-(4'-HYDROXY-<br>3'-METHOXYPHENYL)-<br>HEPTAN-3-ONE | Rhizome    |         |          |        |  |
| 0                | ALPHA-CADINENE  | Rhizome    |         |          |        | Chemical Constituents of Oriental Herbs (3 diff. books)  |
| 0                | IZALPIN   | Rhizome    |         |          |        |  |
| 0                | 1,7-DIPHENYLHEPT-4-EN-3-<br>ONE                               | Rhizome    |         |          |        |  |
| 0                | KAEMPFERID  | Rhizome    | 600.0   | 800.0    |        |  |
| 0                | 1-(4-HYDROXYPHENYL)-7-<br>PHENYLHEPTANE-3,5-DIOL              | Rhizome    |         | 10.0     |        |  |